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### PROJECT SPEC SHEET (EN)

## H2tALENT – ALENTEJO GREEN HYDROGEN VALLEY DELIVERING INTEGRATED FULL-CHAIN SUSTAINABLE HYDROGEN ECOSYSTEM WITH TECHNICAL, ECONOMIC, SOCIAL AND ENVIRONMENTAL BENEFITS AND SUPERIOR UPSCALING/REPLICABILITY

Project no.: 101137611

**Supported by:** Clean Hydrogen Joint Undertaking, under the powers delegated by the European Commission

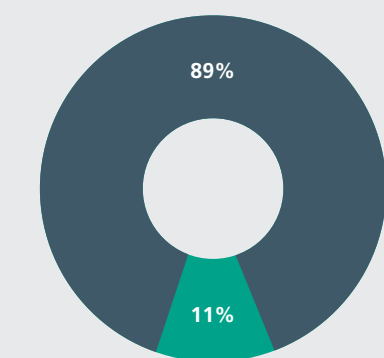
**Partners:** UEVORA, PETROGAL, HyLab, ADRAL, PACT, R2M SOLUTION, CAMPUS SUL, UNL, UALG, CTCV, APS, CIENCIA VIVA, PRF, ISQ, CCDDR-A, IPPortalegre, CME, Fusion Fuel, uni. lu, Roland Berger, TUD, Associação Fraunhofer Portugal Research, CMAIandroal, EDP CNET

**Start date:** 01.03.2024

**Conclusion date:** 28.02.2029

**Total eligible cost:** 9.948.453,94€

**EU Funding:** 8.828.774,82€



■ COPROMOTORS FUNDING

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### Project's overview

H2tALENT is a pioneering project aimed at establishing a comprehensive hydrogen economy within the Alentejo region. This ambitious initiative focuses on the creation of an integrated hydrogen ecosystem, encompassing everything from green hydrogen production to distribution for a range of applications targeting industry, mobility and buildings while also aiming to connect with existing/planned infrastructures and initiatives. By leveraging advanced technologies and strategic collaborations, H2tALENT seeks to position Alentejo as a leading hub for green hydrogen, driving economic growth, job creation, and environmental sustainability.

H2tALENT addresses the urgent need for sustainable energy solutions by fostering the development and deployment of hydrogen technologies. The project aims to decarbonize various sectors, including industry and transportation, through the use of green hydrogen. By integrating cutting-edge digital twin methodologies and comprehensive dissemination and exploitation strategies, H2tALENT ensures the scalability and replicability of its

outcomes. This not only enhances the project's impact within Alentejo but also sets a precedent for hydrogen economy initiatives across Europe and beyond.

The main challenges of H2tALENT are to retain and develop green hydrogen-related talent in the Alentejo, thereby boosting the region's economy and contributing to the national and European energy transition; to deploy a complete value chain from green hydrogen production to multiple and uses, including storage and distribution; to integrate with the broader energy ecosystem to deliver sector coupling, energy flexibility and resilience; and upscale in the Alentejo region via appropriate policies and replicate in follower regions the best-practises and lessons learned.

**Keywords:** hydrogen, membranes, oxygen valorisation, wastewater treatment.